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REMARKS

Claims 1-13, 15, 16 and 19-21 stand rejected under 35 U.S.C. 103(b) as being anticipated by U.S. Patent 5,064,803 (Nunan). This rejection is respectfully traversed for the reasons set forth below.

The Examiner has acknowledged in the third subparagraph under Paragraph 2 of the outstanding Office Action that claim 1 contains the limitation that reads "...said catalyst composition containing substantially no organic compounds nor substantially any zirconia in the form of a composite or solid solution". However, the Examiner goes on to state that:

Nunan does not disclose that the catalyst composition contains organic compounds and does not contain zirconia in the form of a composite or a solid with the ceria.

It is respectfully submitted that the Examiner's statement quoted immediately above is incorrect. The Examiner's attention is drawn to the following passages of the Nunan patent in which state that organic compounds or zirconia is present in the form of a composite or a solid solution with ceria: column 2, lines 55-58; column 3, lines 1-4; column 4, lines 1-23; column 5, lines 36-40; Examples 1, 2 and 5 which utilize dl-tartaric acid as the organic compound; Examples 3 and 6 which utilize citric acid as the organic compound; Example 7 which utilizes dl-lactic acid as the organic compound. Admittedly, comparative Example 4 of the Nunan patent does not utilize any organic compounds. However, Example 4 is irrelevant to the present invention, because of the crystallite sizes of the ceria. In example 4, the ceria existed in the form of clumps of 1000-5000Å whereas in the present invention, the ceria has a crystallite size of less than 100 nm (1000Å).

The Examiner's attention is also drawn to Example 8 appearing on pages 31-32 of the instant specification wherein a catalyst was prepared in accordance with the teachings of the Nunan patent. As may be seen from the results set forth in Tables VI-VIII appearing on pages 33-34 of the instant specification, the catalyst of the present invention (exemplified by Example 9 appearing on page 32 of the instant specification), performed significantly better than the Nunan catalyst in respect to % HC conversion, % CO conversion and % NO_x conversion at every temperature, even though the precious metal loadings of both catalysts were identical.

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The rejection of claims 22-31, 33, 34 and 37-39 under 35 U.S.C. 103(b) as being anticipated by U.S. Patent 5,064,803 (Nunan) fails for the same reasons as set forth above in respect to the rejection of claims 1-13, 15, 16 and 19-21. Examples 13 and 14 of the Nunan patent referred to by the Examiner in Paragraph 3 of the outstanding Office Action all make use of an organic compound. Examples 13 and 14 refer back to Examples 11 and 12. In example 11, citric acid (col. 11, line 47), 2-octanol and methyl cellulose (col. 12, line 14) were utilized as the organic material, while in Example 12, dl-tartaric acid was utilized as the organic material.

The rejection of claims 53-62, 64, 65 and 68-70 under 35 U.S.C. 103(b) as being anticipated by U.S. Patent 5,064,803 (Nunan) fails for the same reasons as set forth above. To reiterate, Nunan requires the use of organic compounds for his catalyst compositions and such organic compounds are absent from the catalyst compositions of the present invention.

All of the claims of the instant patent application stand rejected under 35 U.S.C. 102(b) as being anticipated by Shiraishi et al. This rejection is respectfully traversed for the reasons set forth below.

Shiraishi et al. teach that the ceria employed in their catalyst composition is present in the form of a composite or a solid solution with the zirconium oxide, see column 4, lines 4-6; column 4, lines 61-63; column 6, lines 11-14. In contradistinction thereto, the claims of the present patent application require that the ceria is not present in the form of composite or solid solution with the zirconium oxide. Furthermore, one skilled in the art would recognize that the Shiraishi et al. catalyst composition must differ from that recited in the rejected claims since Shiraishi et al. teach that it is preferable to include an oxide of iron, cobalt or nickel in the catalyst (see column 7, lines 12-17). The instant invention does not require the presence of any of these oxides and nowhere in the instant specification are such oxides mentioned.

Claims 43-48 and 74-83 also stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shiraishi et al. and US Patent 4,367,162 (Fujitani et al.). Applicant does not deny that the prior art teaches that a catalyst composition may be utilized in the shape of pellets. Applicant is not relying on the use of any particular shape of the catalyst to confer patentability upon the claims. Rather, it is applicant's contention that the Shiraishi et al. patent does not disclose

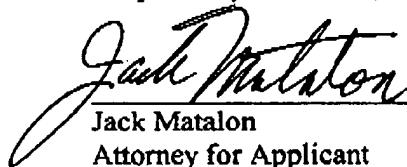
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applicant's invention nor is applicant's invention obvious to one skilled in the art based upon the teachings in the Shiraishi et al. patent for the reasons presented above. The addition of the Fujitani et al. patent does not overcome the deficiencies of the Shiraishi et al. patent as an anticipatory reference.

As is clear from the remarks set forth above, the claims of the present application are neither anticipated by, nor rendered obvious in view of, either the Nunan patent nor the Shiraishi et al. patent. Accordingly, it is respectfully requested that the Examiner reexamine the rejected claims and pass this application to issue forthwith.

Respectfully submitted,



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